

ABSTRACT OF THE DISCLOSURE

A device for protecting flammable fluid reservoirs, or the regions in immediate proximity thereof, from the hazards due to impact and reservoir rupture, and subsequent potential of fire, corrosion or other damage or injury due to contact with reactive fluids. Such impacts may arise from collisions, such as encountered in transportation systems, or structural or thermal failure and/or rupture of components and systems, or separation of system components. Such a device may be formed as a close-fitting shroud over such components, or surrounding fittings and junctions of mating components in such systems, or mounted near the location of such components in the direction of impact or failure. Such a device may have a pattern of pre-scored lines to facilitate break-up of the device upon impact or thermal stress. Upon activation, the device shall discharge material contents that prevent or extinguish fires, neutralize corrosive or caustic materials, or otherwise protect equipment and personnel of the hazards from the protected component or system fluid contents. Such a device may be constructed of more than one individual component to optimize outer surface break-up behavior while accommodating desired cost, thickness and weight goals achievable by the use of other materials that comprise the remaining components of the device.

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